UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: JUL 22 1986

SUBJECT: ~~Chemetco Site Visit~~ RCRA Facility Assessment

FROM: Juana E. Rojo J.E. Rojo

TO: FMP File - ILD 048 843 809

In connection with the RCRA Facility Assessment of Chemetco, a site visit was conducted on May 28, 1986, by Federal and State representatives. Present for discussion were:

Jim Mayka, Technical Programs Section, U.S. Environmental Protection Agency
Juana Rojo, Technical Programs Section, U.S. Environmental Protection Agency
Tom Powell, Field Operations Section, Illinois Environmental Protection Agency
Joel McKell, Plant Engineer, Chemetco
Jim Roberts, Plant Manager, Chemetco
Richard Coleman, Chemetco's Environmental Consultant, Coleman Engineering

Chemetco operates a secondary copper smelter in Hartford, Illinois. The facility is located near the intersection of Highways 3 and 203. Chemetco's raw materials, which come from the United States and Canada, are copper and tin-bearing scrap, and manufacturing residues. The following is a summary of Chemetco's operations, as described to us by Chemetco's personnel.

Process Information

Copper-bearing raw materials arrive at Chemetco by truck and rail. Much of them have originated in electrical or electronic equipment or cable, but other materials are composed of slags, grindings, residues from foundries and factories, auto parts, and building components. Each lot is weighed and piled separately. Copper and other metallic contents are determined in the laboratory. Chemetco has four gas-fired furnaces where the following operations are carried out.

Smelting A premix of the copper-bearing scrap and other ingredients (which contain iron, aluminum, and zinc), is smelted in the first step of the process. This produces "black copper" containing approximately 65% copper. Some non-reclaimable slag is also produced.

Refining (Oxidation) The "black copper" is further refined using blown oxygen, producing 99% copper along with zinc oxide. The copper is transferred to the anode furnace, from which it is cast in molds. The refining slag from this operation contains zinc, iron, nickel, silver, lead, and tin.

Slag Re-Treatment (Selective Reduction) The slag from the refining step goes to one of the furnaces producing "black copper", which is fed back to the second-stage furnance. Lead and tin are recovered as a solder alloy containing approximately 70% lead and 30% tin.

Acid Recovery Ditch Several yards from the facility, on the south side of the Oldenburg Road, Chemetco dug a ditch approximately ten feet deep, to collect spent chemical solutions. In November of 1983, IEPA analyzed samples of the liquid contained in the ditch. The liquid was found to contain several metals including lead, arsenic, cadmium and chromium. The ditch is now closed.

Distressed Vegetation Area The liquid wastes from the acid pit and the acid recovery ditch, saturated the soil and the subsoil of the area located on the south side of the Oldenburg Road, damaging the vegetation and causing discoloration of the soil. Presently, Chemetco has been trying to remove the liquid wastes from this area. A large, perforated tank, buried in the acid-soaked area, collects the liquid waste, which is then pumped back into the plant.

Slag Pile (on South Side of Oldenburg Rd.) Slag was used to build a truck parking lot on the southwest side of the facility. The parking lot was expanded after 1980, and a waste pile was placed on the south side of the parking lot area. The pile has been removed, but the parking lot is still being used. Vegetation stress been observed to the south of the parking lot.

Based on information contained in both Agencies' files (aerial photographs, etc.), it appears that Chemetco has operated a few more waste management units (i.e., surface impoundments, waste piles) than those discussed during our visit; most of them, however, appear to have been replaced by some of the current units. There is also evidence of releases of hazardous wastes to nearby roads, agricultural fields, and surface streams (Long Lake, Cahokia Drainage Canal). In addition, groundwater contamination is an established fact, particularly with regard to heavy metals and pH.

Still, additional sampling data (from groundwater, soils, and streams), is necessary before making corrective action determinations for this facility. Although Chemetco has installed several groundwater monitoring wells, there is no RCRA groundwater monitoring system at the facility. Chemetco submitted a Part B permit application; nevertheless, it still claims that its recycling operation is exempt from most of the RCRA requirements.

cc: Linda Kissinger, IEPA

Until November of 1984, the copper casts (anodes) went through an electrolytic process to remove nickel and precious metals. The end product, copper, was 99.99% pure. The process water, containing nickel sulfate, was filtered and treated, and the nickel sulfate was then stored, usually in plastic bags. The solid material that settled to the bottom of the electrolytic cells, which Chemetco calls slime, contained mainly silver, gold and a small quantity of platinum. The slime was sold.

Currently, Chemetco sells the copper casts as they come from the refining step. The electrolytic cells, also called tanks by Chemetco, are now only used for the gravity separation of the zinc oxide slurry contained in the settling impoundments. The settling impoundments collect the effluent from the foundry flue gas scrubber system.

Wastes

The wastes generated by Chemetco include slag from the smelting and re-treatment operations and the zinc oxide sludge generated from the foundry flue gas scrubber system. IEPA analyses of slag samples have shown EP toxic levels of lead and cadmium. The zinc oxide sludge also contains EP toxic levels of lead and/or cadmium.

Operation of the electrolytic process generated corrosive acidic liquids and nickel sulfate. Waste containing sulfuric acid appears to have been stored in the "acid pit" located in the southeast corner of the property.

Facility Description

Please refer to Figure 1, which is a simplified diagram of the facility.

Foundry The smelting process generates zinc oxide and slag. A caustic scrubber is used to remove zinc oxide from the smelter flue gas. The scrubber effluent is routed to the settling ponds where the solids are thickened for further processing.

The slag is transported in molten form to storage areas (slag piles). The slag requires extended storage and/or treatment prior to sale.

Settling Impoundments or Polish Pits The scrubber effluent is circulated through two concrete-lined settling pounds. It appears that one of the impoundments was lined recently, since an IEPA inspection report dated January 9, 1981, noted that the primary settling impoundment was constructed of native soil.

The scrubber effluent contains zinc oxide, tin, lead and cadmium. The settlings (a slurry that looks like gray mud) are transferred to the electrolysis building by means of a pipe located near the bottom of the impoundments. The liquid is treated on-site and re-used in the scrubbers. Also, some of the liquid used to be pumped to the cooling canal. In the past--certainly during early 1981--the settlings were also transferred to two or more impoundments called ZnO pits.

ZnO Pits These surface impoundments no longer exist. However, IEPA reported the existence of three zinc oxide pits after a visit to Chemetco on January 9, 1981. Two were active, containing approximately 40% zinc oxide and the other metals present in the settling impoundments. A third pit was being constructed at the time of the visit. The pits were eventually closed, but not under State regulations.

ZnO Pile Chemetco used to store zinc oxide sludge from the ZnO pits on the ground, east of the settling impoundments. This pile, which no longer exists, is now part of the Chemetco's Part B permit application as a future storage pile. There was no formal closure of the original ZnO pile.

ZnO Bin This was a concrete structure used to store zinc oxide, apparently from the ZnO pile next to the settling impoundments. The bin no longer exists. The area where the bin was located is currently used for the storage of iron-bearing scrap.

Tom Powell and Perry Mann of the IEPA, reported releases from the ZnO bin, on October 26, 1983. During their visit to Chemetco on October 21, 1983, ZnO was observed to be washing through the facility's chain-link fence (along the eastern property line), onto a field sowed with wheat.

Scrap Yard This area contains large piles of slag, and zinc oxide waste from the smelter flue gas scrubber system (normally after the filter bed process). Chemetco claims that both materials are reclaimable; however, the size of the slag pile has been increasing over the years and there is no available evidence of any slag being re-used or recycled off-site. The market for the zinc oxide sludge also appears to be limited.

The slag and zinc oxide piles are placed next to each other on a concrete pad measuring over 300 feet on each side and surrounded by concrete walls several feet tall (still in construction). Both materials were placed on the ground prior to the construction of the concrete pad. Hazardous levels of lead and cadmium have been found in the piles.

Slag Piles There are two large slag piles on the northeast side of the facility. These piles are placed directly on the ground.

Cooling Canal A recirculating canal (surface impoundment) surrounds the slag piles. The canal, which is not lined, was used for the storage of non-contact cooling water for the scrubber system until October of 1984. Liquid from the old ZnO pits was also pumped into the canal. IEPA tests have shown that the canal sediment contains hazardous levels of cadmium and lead. These metals were also found in the water contained in the canal. In addition, IEPA files contain evidence that runoff from this canal drained across Chemetco's property line over adjacent fields.

Although the canal is currently used for the storage of rainwater only, the presence of slag was observed, at the bottom and on the sides of the canal.

Pump House Area This area contains a concrete-lined reservoir which receives rainwater from the cooling canal. The water is then pumped to the foundry flue gas scrubbers. It should be noted that the rainwater coming from the cooling canal has been in contact with the hazardous (EP toxic) waste contained in the canal.

Electrolysis Building The zinc oxide sludge from the settling impoundments is pumped to the electrolytic cells. These are concrete tanks which are now only used for the gravity separation of the zinc oxide sludge. The heavier slurry drains down to a tank and it is then transferred to two filter presses where it is dewatered. The filter cake is stored in the ZnO pile where, Chemetco claims, the zinc oxide awaits sale or recovery.

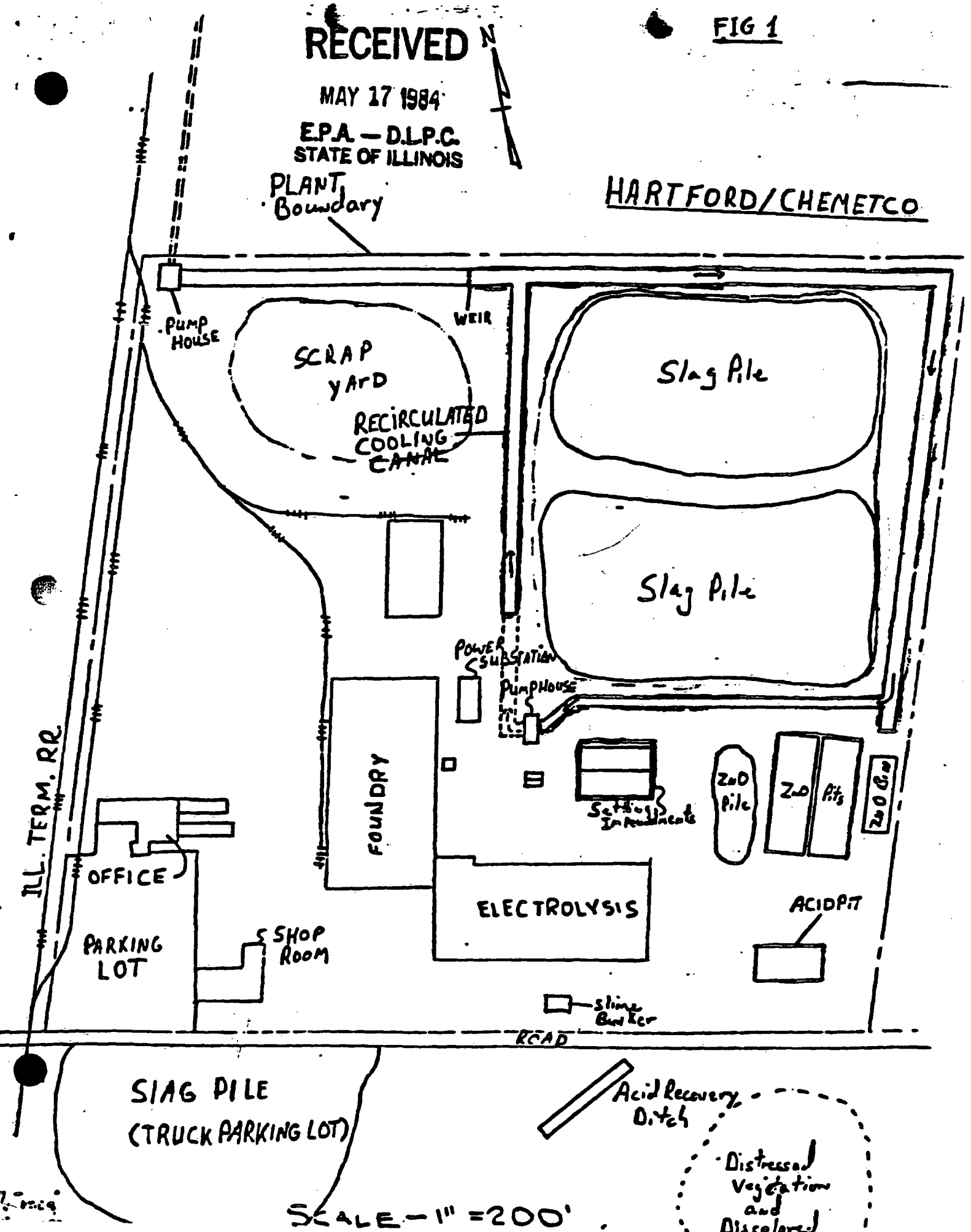
The electrolysis tanks are washed outside the electrolysis building, in a concrete-lined area next to the slime bunkers. It appears that this area is also used to store the electrolysis tanks that are no longer in use.

Slime Bunker The bunker located to the south of the electrolysis building was used to store the filter cake which resulted from dewatering the sediments (called slime by Chemetco) from the electrolysis cells. The filter cake contained mainly silver, gold and a small quantity of platinum.

Currently, the slime bunker is not used to store any process material or waste. The bunker is enclosed in a small storage building.

Acid Pit This is a closed surface impoundment located in the southeast corner of the facility. Although Chemetco claims that they recycled the electrolyte (sulfuric acid solution), it appears that when some of the liquid was too contaminated to be re-used, it was stored and/or disposed in the acid pit and in the acid recovery ditch. The acid pit (unlined) was later covered with soil and slag, apparently leaving the acid waste in place.

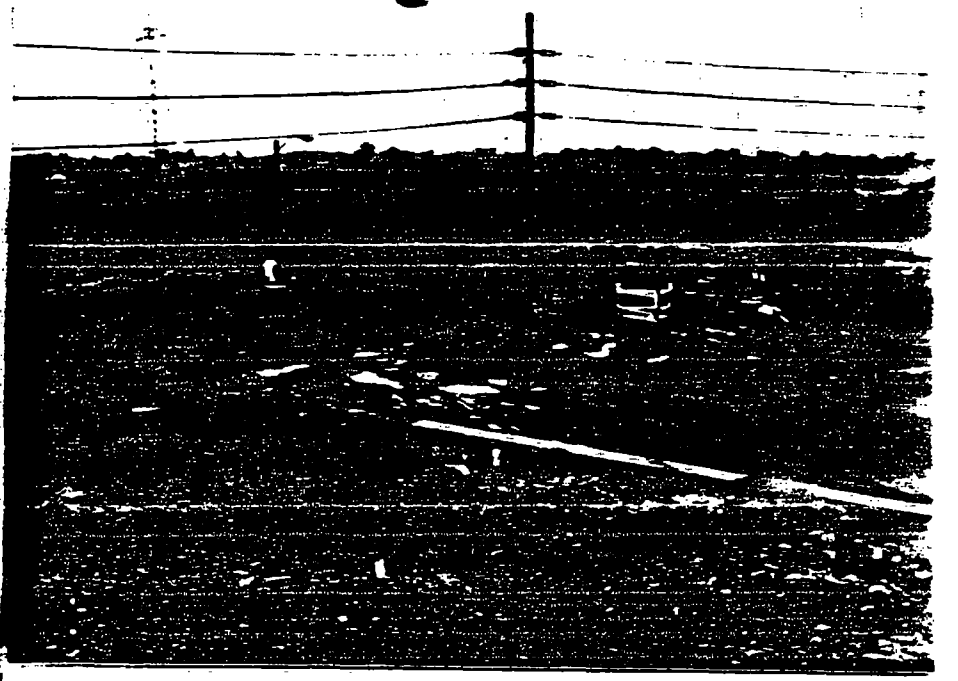
FIG 1



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Area between Scrap Yard and Slag Pile (Northeast side)
LOCATION: Northern side near facility property line next to agricultural field
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:15 AM
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Joel McKell from Chemetco
WITNESS: Jeanne E. Rojo & James Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: FNP Folder FILE #: ELD048843809
PROCESSED BY: U.S.EPA GRAPHIC ARTS
PHOTO #: 1 of 28

GPO 891-889



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: West side of Slag Pile
LOCATION: Northeast side of the facility
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:15 AM
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Joel McKell from Chemetco
WITNESS: Jeanne E. Rojo & James Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: FNP FOLDER FILE #: ELD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 2 of 28

GPO 891-889

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Southeast side of Slag Pile, Partial views of 2nd Slag Pile and east side of Scrap Yard
LOCATION: Northeast side of FACILITY
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:15 AM
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Jeanne E. Rojo
WITNESS: Joel McKell & James Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: FNP FOLDER FILE #: ELD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 3 of 28

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Concrete wall that surrounds Scrap Yard. Also, Recirculating Cooling Canal at the base of Slag P.
LOCATION: North-Central area of the facility
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:15 AM
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Joel McKell
WITNESS: Juana E. Rojo & Jim Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T-1/ f:
NEGATIVE LOCATION: FNP Folder FILE #: ELD048843209
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 4 of 28

GPO 891-889

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Concrete wall & pad where Scrap Yard has been placed
LOCATION: North-central area of the facility
(Foundry is in the background toward the South.)
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:30
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Juana E. Rojo
WITNESS: Joel McKell & Jim Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T-1/ f:
NEGATIVE LOCATION: FNP FOLDER FILE #: ELD048843209
PROCESSED BY: U.S. EPA GRAPHIC ARTS
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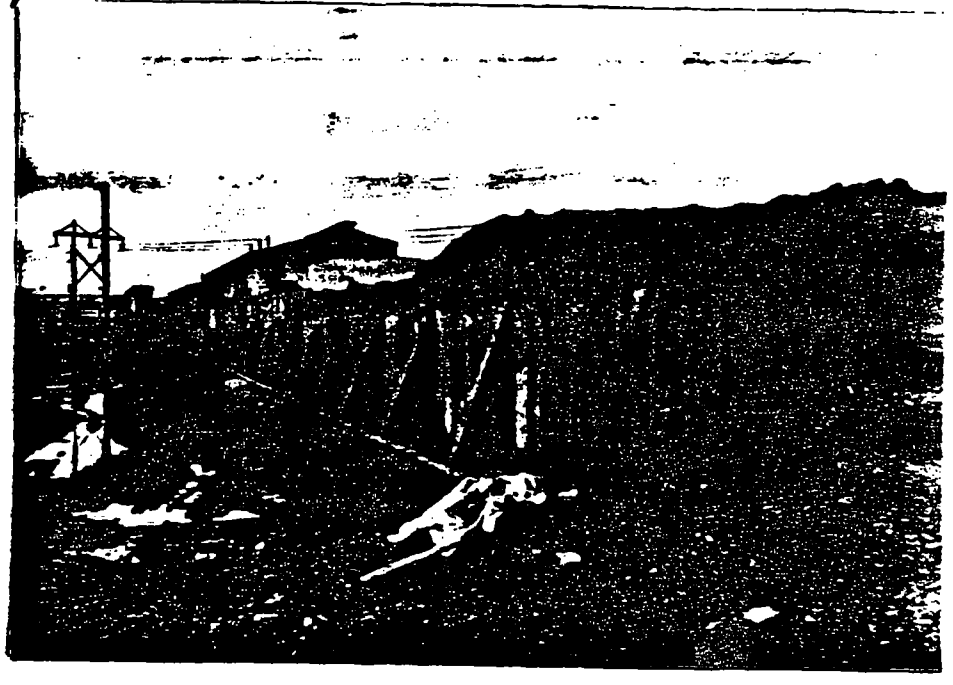
GPO 891-889

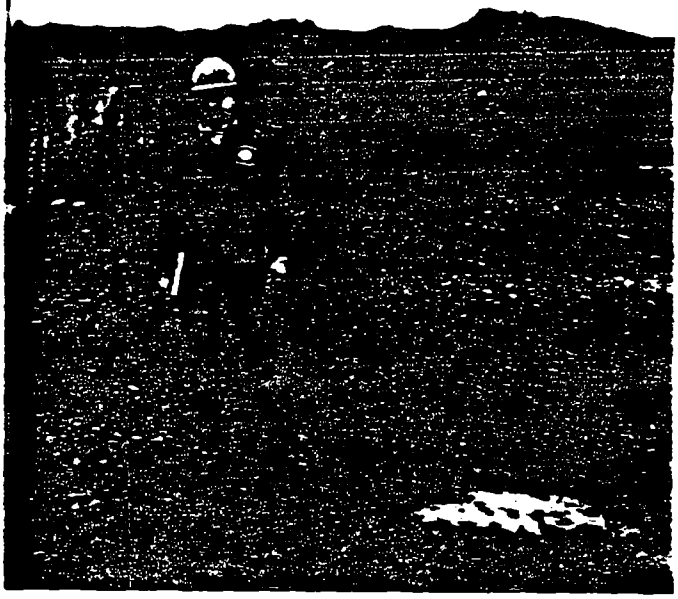


OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Ramp at the base of the slag pile located in the Scrap yard *
LOCATION: Scrap yard on northwest side of facility (Ramp is on north side).
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:30
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.): Joel McKell
WITNESS: Juana E. Rojo & James Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T-I/ F
NEGATIVE LOCATION: FMP Folder FILE #: EL0048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 6 of 28

GPO 885-899

* Also, Jim Mayka is in this photograph



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Recirculating cooling canal
LOCATION: North central area of the facility.
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:30
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.): Juana E. Rojo
WITNESS: Joel McKell & James Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T-I/ F
NEGATIVE LOCATION: FMP FOLDER FILE #: EL0048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 7 of 28

GPO 885-899

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Recirculating cooling canal at the base of Slag Piles.
LOCATION: North-central area of the facility.
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:30
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Duane E. Rose
WITNESS: Joel McKell & James Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: ENP Folder FILE #: ILD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
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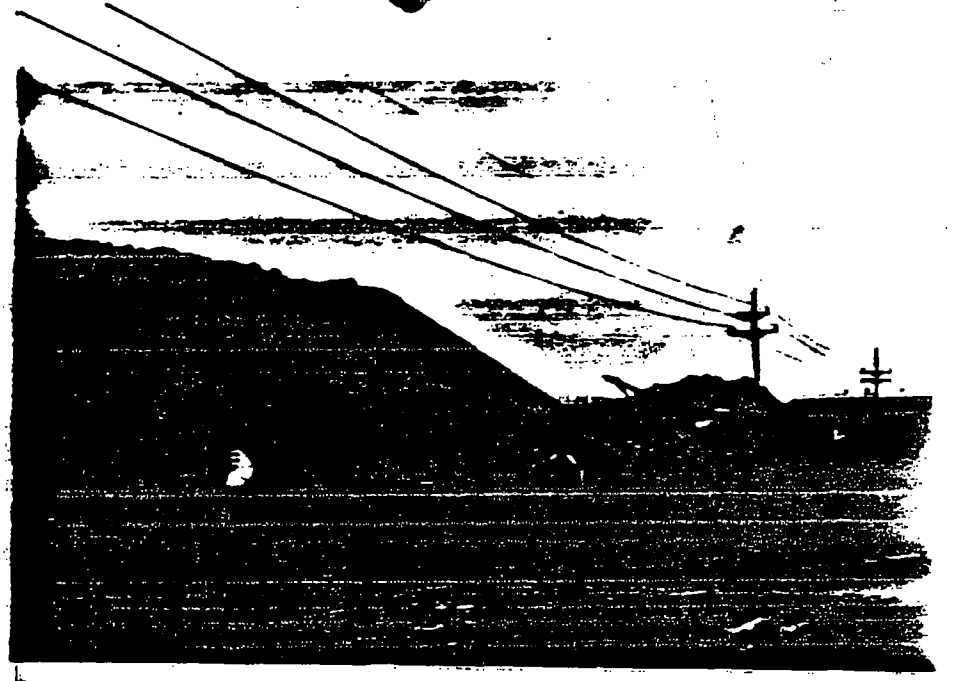

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: West side of Scrap yard. A slag pile used to be located in the wet area. Rail mill is at right
LOCATION: North west side of facility.
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:45
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Joel Mc Kell
WITNESS: Duane E. Rose & James Mayka
CAMERA: CHEMETCO PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: ENP FOLDER FILE #: ILD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 9 of 28

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Smoky slag from foundry Surrounded by raw material
LOCATION: West central area, north of the foundry
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:45
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Duane E. Rose
WITNESS: Joel Mc Kell & James Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: ENP FOLDER FILE #: ILD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 10 of 28

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Raw materials by foundry. Slag on the left.
LOCATION: South-center of facility.

CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:45
WEATHER: SUNNY HAZE CLOUDY RAIN SNOW
PHOTOGRAPHER (S): Duane Kopa
WITNESS: Joel McKell & James Hayes
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: EMP Folder FILE #: ELDORR43209
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 11 of 28

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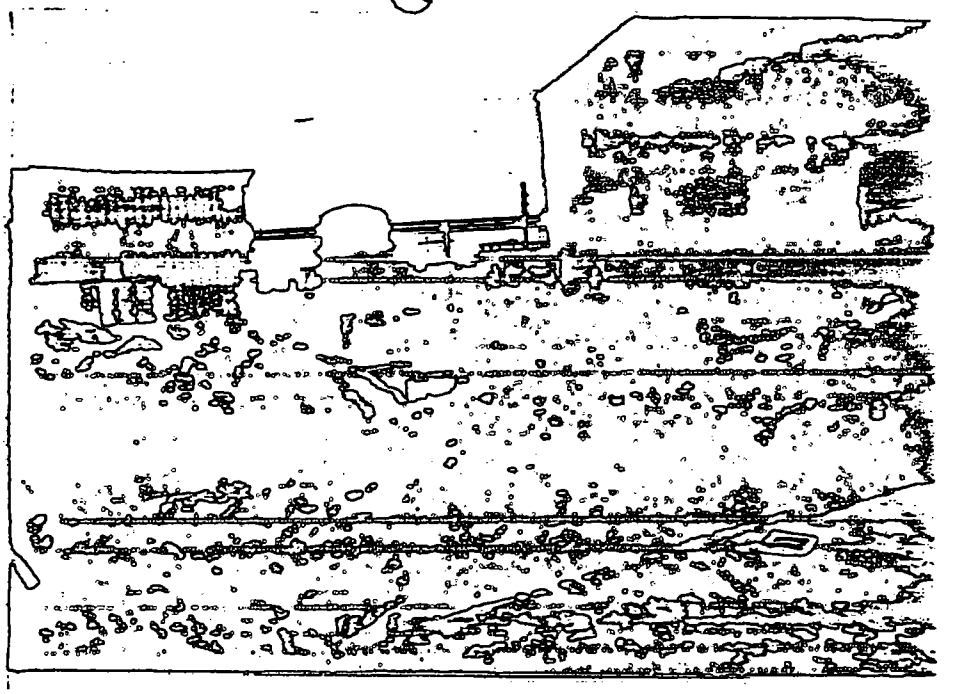

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Piles of raw material
LOCATION: West side of facility

CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 11:45
WEATHER: SUNNY HAZE CLOUDY RAIN SNOW
PHOTOGRAPHER (S): James Hayes
WITNESS: Duane Kopa, Joel McKell
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: EMP FOLDER FILE #: ELDORR43209
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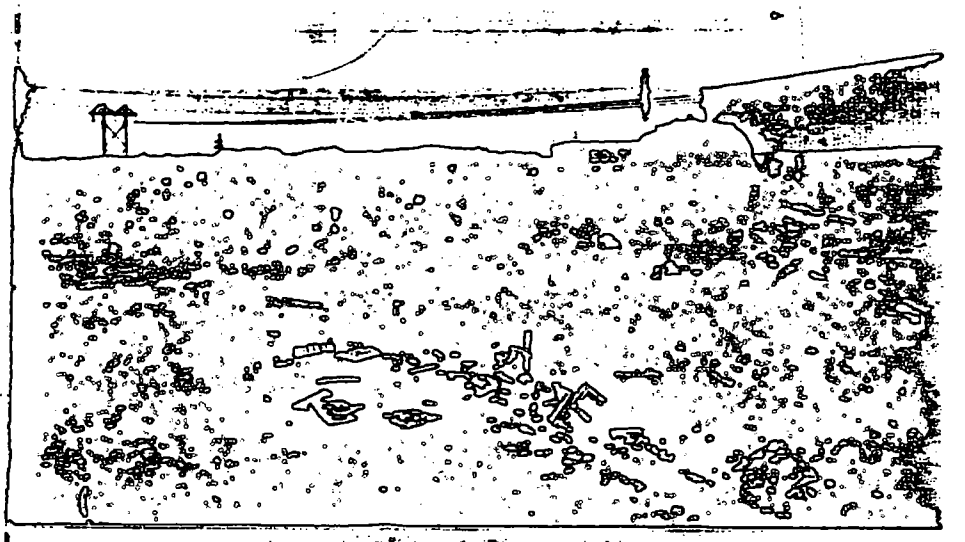

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Piles of raw material along main tracks
LOCATION: West side of facility

CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: ~12:00
WEATHER: SUNNY HAZE CLOUDY RAIN SNOW
PHOTOGRAPHER (S): James Hayes
WITNESS: Duane Kopa & Joel McKell
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: EMP FOLDER FILE #: ELDORR43209
PROCESSED BY: U.S. EPA GRAPHIC ARTS
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OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: PUMPHOUSE AREA. WATER TANK
LOCATION: CENTER OF FACILITY. SOUTH OF THE SLAG PILES
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 12 PM
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.): Juana E Rojo
WITNESS: Joel McKell & Jim Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: EAP Folder FILE #: ILD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
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OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: TANK OF RAIN WATER COLLECTED FROM POOL CAN
LOCATION: CENTER OF FACILITY. SOUTH OF THE SLAG PILES
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 12 PM
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.): Juana E Rojo
WITNESS: Joel McKell & Jim Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: EAP FOLDER FILE #: ILD048843809
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OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: SETTLING IMPOUNDMENTS
LOCATION: SOUTH OF THE SLAG PILES, TOWARD THE EAST SIDE OF THE FACILITY
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 12:15
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.): Juana E Rojo
WITNESS: Joel McKell & James Mayka.
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: EAP FOLDER FILE #: ILD048843809
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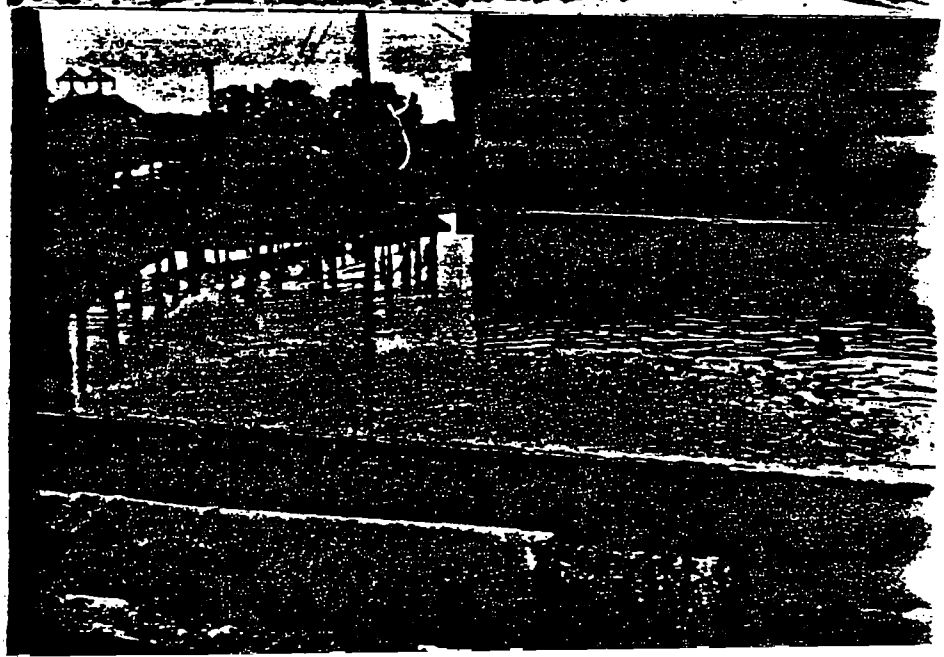

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: ZnO settlings in settling or "Polish pits"
LOCATION: Settling impoundments, located South of the Slag piles
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 12:30
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Juan E Lozo
WITNESS: Joel McKell & Jim Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T-1/ f-
NEGATIVE LOCATION: ENP Folder FILE #: ELD048843809
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OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: ZnO settlings in Settling or Polish Pits
LOCATION: Settling impoundments located to the south of the slag piles.
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 12:35
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Juan E Lozo
WITNESS: Joel McKell & Jim Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T-1/ f-
NEGATIVE LOCATION: ENP FOLDER FILE #: ELD048843809
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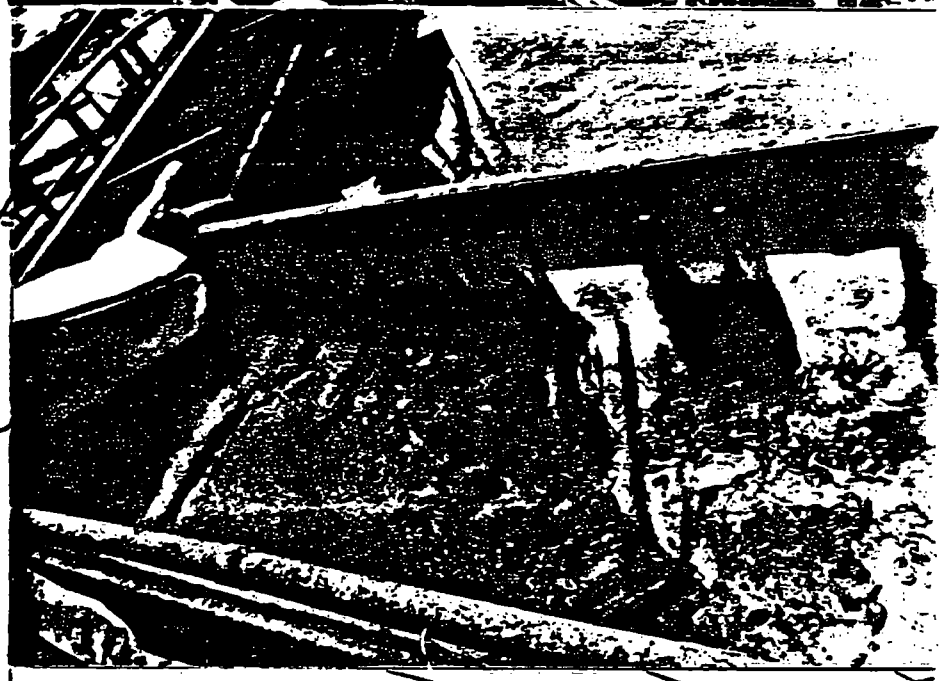
PHOTO #: 19 of 28



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Parts, and piles of raw mat'l
LOCATION: Southeast side of the facility.
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 12:40
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Juan E Lozo
WITNESS: Joel McKell & Jim Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T-1/ f-
NEGATIVE LOCATION: ENP FOLDER FILE #: ELD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 19 of 28

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

...SE NO: CHEMETCO SITE VISIT
...JECT: Sump pump for collecting runoff
...CATION: Next to the settling impoundments
...TY: HARTFORD COUNTY: MADISON STATE: ILL
...TE: 5-28-86 TIME: 12:45
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.): Juana E. Rojo
...NESS: Joel McKell & James Mayka
...MERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: ____ T.1/____ f.____
NEGATIVE LOCATION: FMP Folder FILE #: ILD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 20 of 28

GPO 888-888

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
...BJECT: Area near Slime Bunker
...CATION: South side of the facility
...TY: HARTFORD COUNTY: MADISON STATE: ILL
...TE: 5-28-86 TIME: 1:00 PM
...ATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.): Juana E. Rojo
...TNESS: Joel McKell & James Mayka
...MERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: ____ T.1/____ f.____
NEGATIVE LOCATION: FMP FOLDER FILE #: ILD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 21 of 28

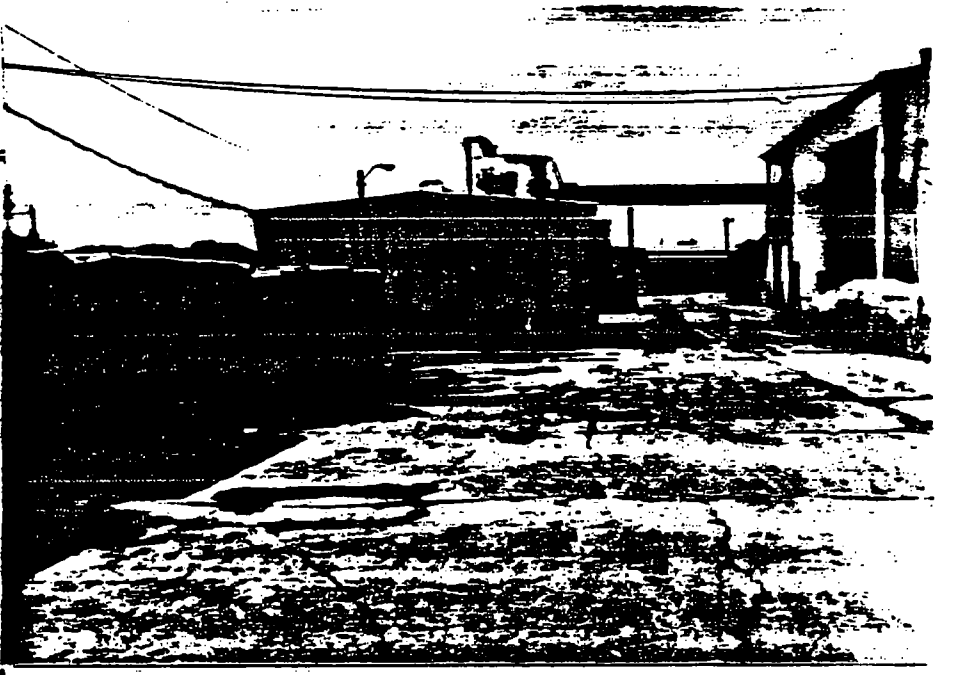
GPO 888-888

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

...OJECT/CASE NO: CHEMETCO SITE VISIT
...BJECT: Area south to the electrolysis building.
...CATION: South side of the facility
...TY: HARTFORD COUNTY: MADISON STATE: ILL
...TE: 5-28-86 TIME: 1:15
...ATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
...OTOGRAPHER (Sig.): Joel McKell
...TNESS: Juana E. Rojo & James Mayka
...MERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: ____ T.1/____ f.____
NEGATIVE LOCATION: FMP FOLDER FILE #: ILD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 22 of 28

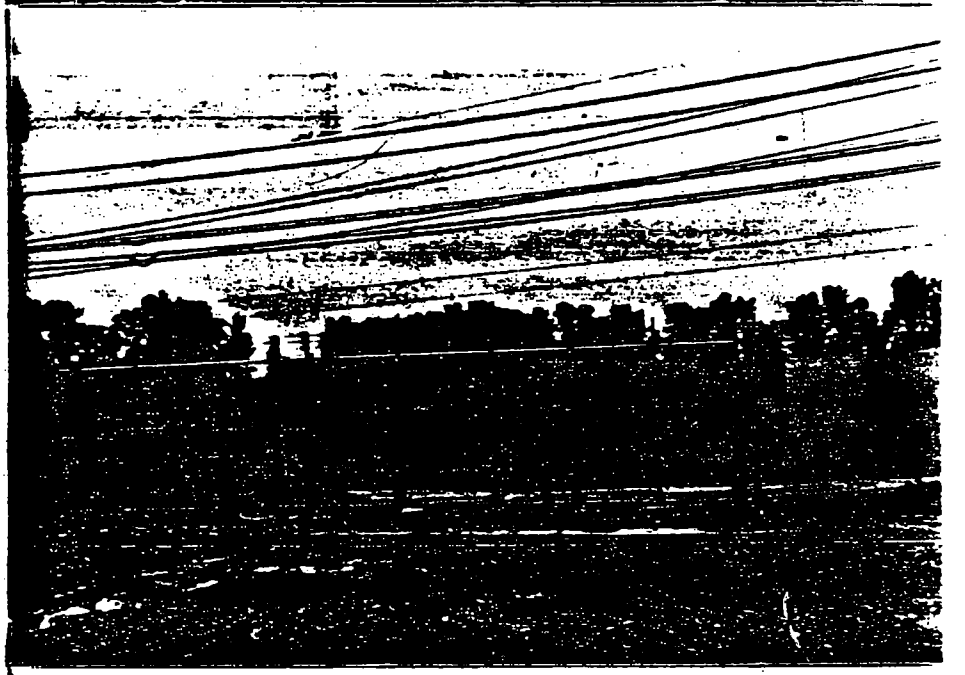
OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Slime Bunker & electrolysis tanks out in use
LOCATION: South Side (to the center) of the facility
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 1:30
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Juana Rojo
WITNESS: Joel Mekell & James Hayke
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: FNP Folder FILE #: ELD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 23 of 28



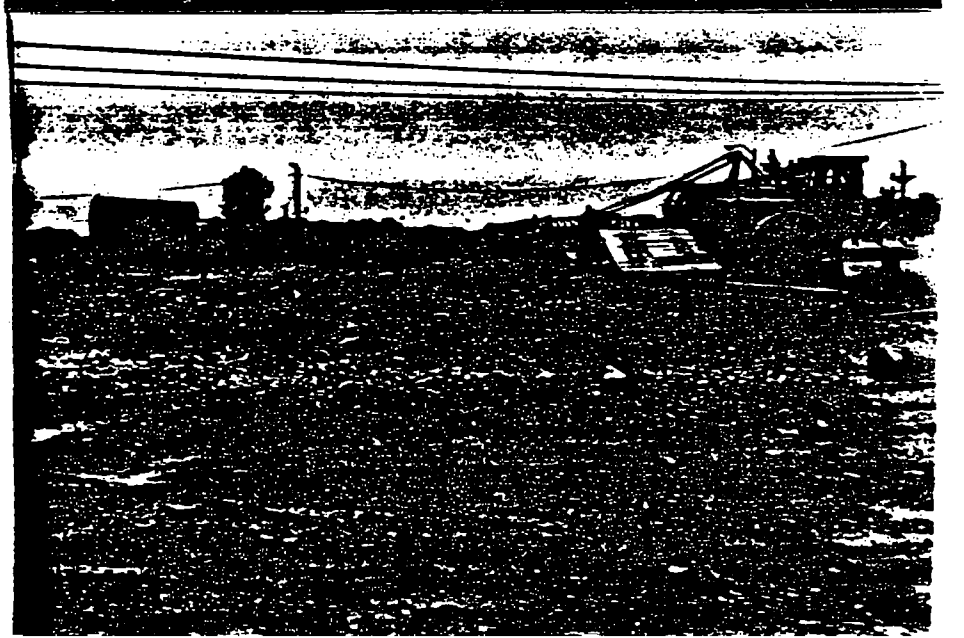
OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Distressed vegetation on the South side of the facility
LOCATION: South of the Oldenburg Road.
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 1:35
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Joel Mekell
WITNESS: Juana Rojo & James Hayke
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: FNP FOLDER FILE #: ELD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 24 of 28



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Covered Acid Pit
LOCATION: Southeast area of the facility
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 1:40
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.) Juana Rojo
WITNESS: Joel Mekell & James Hayke
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.I./ f:
NEGATIVE LOCATION: FNP FOLDER FILE #: ELD048843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 25 of 28



OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Slime bunker & electrolysis tanks & section of closed acid pit area.
LOCATION: Southeast side of the facility.
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 1:45 PM
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.): Jill McKell
WITNESS: Juanita Rojo & James Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T-I/ P:
NEGATIVE LOCATION: FNP Folder FILE #: EL00488843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 26 of 28

GPO 891-900

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Truck Parking Lot where sleg pile used to be located.
LOCATION: Southwest Side of facility, across Oldenburg Road
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: 1:50
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.): Jill McKell
WITNESS: Juanita Rojo & James Mayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T-I/ P:
NEGATIVE LOCATION: FNP FOLDER FILE #: EL00488843809
PROCESSED BY: U.S. EPA GRAPHIC ARTS
PHOTO #: 27 of 28

GPO 891-900

OFFICIAL PHOTOGRAPH
U.S. ENVIRONMENTAL PROTECTION AGENCY

PROJECT/CASE NO: CHEMETCO SITE VISIT
SUBJECT: Runoff Collection System (Concrete lined)
LOCATION: Southeast side of the facility (Still in construction)
CITY: HARTFORD COUNTY: MADISON STATE: ILL
DATE: 5-28-86 TIME: ~2:00 PM
WEATHER: (SUN) (HAZE) (CLOUDY) (RAIN) (SNOW)
PHOTOGRAPHER (Sig.): Diana Ethyia
WITNESS: Joel Hackett & James Hayka
CAMERA: CHEMETCO'S PROPERTY
FILM TYPE: 35 MM ASA: T.V.: F:
NEGATIVE LOCATION: ENF Folder FILE #: IL0048883809
PROCESSED BY: U.S.EPA GRAPHIC ARTS
PHOTO #: 28 of 28

GPO 885-286